Appendix J: Soil Associations

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Port Louisa NWR
Big Timber Division
Fruitfield - Elrick - Toolesboro – nearly level and very gently sloping, excessively drained, well drained and poorly drained, loamy and sandy soils that formed in alluvium on bottomland.

Ambraw - Shaffton - Nodaway – nearly level, poorly drained to moderately well drained, silty and loamy soils that formed in alluvium on bottom land.

Louisa Division
Fruitfield - Elrick - Toolesboro – see Big Timber Division
Ambraw - Shaffton - Nodaway – see Big Timber Division
In minor amounts: Atterberry - Muscatine - Stronghurst – nearly level, somewhat poorly drained, silty soils that formed in loess on uplands.

Horseshoe Bend Division
Fruitfield - Elrick - Toolesboro – see Big Timber Division
In minor amounts: Rowley - Tuskeego - Titus – nearly level, somewhat poorly drained and poorly drained, silty soils that formed in alluvium on bottom land and low stream terraces.
Downs - Fayette – Gently sloping to steep, well drained, silty soils that formed in loess on uplands.
Atterberry - Muscatine - Stronghurst – see Louisa Division

Keithsburg Division
Sawmill - Orion - Radford – poorly drained and somewhat poorly drained, occasionally flooded and frequently flooded, moderately permeable, silty soils; formed in alluvium. Minor in this association are the poorly drained Brooklyn and moderately well drained Raddle soils on nearly level stream terraces. Most areas of this association are used for cultivated crops. Some areas close to the streams support native timber. Well suited to cultivated crops. Flooding and seasonal high water table are main management concerns.

Great River NWR
Fox Island Division
Soils found within the Fox Island Division are comprised primarily of silt loams and silty clay loams, with some fine sandy loam, sandy loam and loamy sand also mapped.

Klum fine sandy loam is frequently flooded and is subject to flooding of long duration; it is moderately well drained; found on floodplains. The soil is suited to trees. Hydric inclusions.

Huntsville silt loam is occasionally flooded, well drained, and is found on broad raised areas of the floodplain. It is generally protected by levees but is subject to flooding because of levee breaks. Seepage through the levees also may cause partial flooding during extended periods of high water. This soils is well suited to trees.

Colo silty clay loam is occasionally flooded, poorly drained soil found on floodplains. It is protected by levees but is subject to flooding for brief periods due to

levee breaks. Seepage through the levees also causes partial flooding during extended periods of high water. Hydric soil.

Zook silty clay loam is occasionally flooded, poorly drained soil in low areas of broad floodplains. It is subject to flooding for brief periods. Hydric soil. Gilford loam is occasionally flooded, poorly drained soil found in low areas of broad floodplains. It is subject to flooding and ponding for brief periods. This soil is suited to trees. Equipment limitations, seedling mortality and the windthrow hazard are the main management concerns.

Beaucoup silt loam is occasionally flooded, poorly drained soil on flood plains. It is protected by levees but is subject to flooding and ponding for brief to long periods. Seepage through the levees causes partial flooding in some areas during extended periods of high water.

Perks loamy sand is occasionally flooded, excessively drained soil on slightly raised areas of the flood plains. It is protected by levees but is subject to flooding for brief periods. Seepage through the levees causes partial flooding in some areas during extended periods of high water. This soil is well suited to trees. Seedling mortality is a problem in woodland management. Reinforcement planting or planting container-grown stock will help improve seedling survival. Fatima silt loam is frequently flooded, moderately well drained soil on broad natural levees of the flood plains. It is protected by levees but is subject to flooding for brief periods. Seepage through the levees causes partial flooding in some area during extended periods of high water. This soil is suited to trees.

Long Island Division
Soils on the Long Island Division are composed primarily of silty loam and silty clay loam types. These include Beaucoup silty clay loam, Huntsville silt loam, Tice silty clay loam and Lawson silty loam (hydric inclusions). A small area of Riverwash (sand and gravel) has also been delineated.

Delair Division
Soils on the Delair Division are composed primarily of silt loams and silty clay loams. These include Beaucoup silty clay loam, Shaffton silty clay loam, Petrolia silt loam, Ambraw loam, Haymond silt loam, Wakeland silt loam, Ambraw silt loam, Ceresco loam and Titus silty clay. Also mapped are areas including Sparta loamy fine sand, and Sarpy loamy fine sand. (Cannot find names for soils mapped 4070 and 8071).

Clarence Cannon NWR
Chequest - Dockery - Carlow - very deep, nearly level, somewhat poorly drained and poorly drained soils formed in alluvium; on flood plains. Of minor extent in this association are the Blackoar, Dupo, Haymond and Moniteau soils. This association is used mainly for cultivated crops (corn, soybeans and small grain). Some small areas are used for timber.

Two Rivers NWR
Batchtown Division
Beaucoup-Tice - poorly drained and somewhat poorly drained, nearly level, silty soils formed in alluvium on floodplains. Depressions and former stream channels are widely scattered throughout the bottom land. Minor soils in this association are Orion, Raddle and Wakeland soils. The major soils are used for cropland or

as habitat for wetland wildlife. They are well suited to use as habitat for wetland wildlife. They are moderately suited to cultivated crops.

Calhoun Division
Beaucoup-Tice (see Batchtown Division).
Booker - Okaw – Very poorly drained and poorly drained, nearly level, clayey and silty soils formed in lacustrine sediments or in loess and lacustrine sediments; on terraces. Minor soils in this association are Hurst and Oakville soils. The major soils are used mainly as cropland or woodland. These soils are moderately suited to cultivated crops and to use as woodland. They are well suited to use as habitat for wetland wildlife.

Gilbert Lake Division
Bottomland and Terrace soil Association – nearly level to gently sloping, poorly drained to well-drained bottomland soils and nearly level to steep, imperfectly drained to well-drained terrace soils. The most common soils are Beaucoup, Darwin, Wabash, Rice, McFain, Lawson, Dupo, Jules and Huntsville.

Portage Islands Division
Portage Islands is comprised of the Carlow silty clay loam soil type. This nearly level, poorly drained soil is on the Mississippi River flood plain. Subject to occasional flooding. The soil is suited to trees. Seedling mortality may be a problem because of the wetness of the soil.

Apple Creek WMA
Lawson - Wakeland - Beaucoup : nearly level, somewhat poorly drained and poorly drained soils that formed in water-deposited sediment; on flood plains. This is the primary association on Apple Creek Division.

Fayette - Sylvan - Bold: gently sloping to very steep, well-drained soils that formed in loess; on uplands. Minor amount of soil association on Apple Creek WMA.

Middle Miss NWR
Harlow Island Division
Soils composing Harlow Island include Blake silty clay loam and Blake series, both consisting of somewhat poorly drained soils formed in alluvium on bottom lands. Also Haynie silt loam and Haynie series which are well and moderately well drained soils. Haynie series soils were formed in calcareous silty alluvium on bottom lands. Haynie silt loam is frequently flooded with a high availability for water capacity. It is well-suited for growing cultivated crops. Waldron silty clay and Waldron silty clay loam is somewhat poorly drained. Waldron silty clay loam is occasionally flooded and is usually protected by levees.

Wilkinson Island Division
Darwin - Medway - Cairo – very poorly drained to somewhat poorly drained soils that formed in water-laid clayey or loamy sediment in the flood plain of the Mississippi River. This association consists mainly of nearly level to sloping soils on broad flats, ridges and knolls of the Mississippi River bottom land. Minor soils include Ware, Karnak, Gorham, and Bowdre. Most areas of this association are used for growing corn, soybeans, grain sorghum and wheat. Soils that are not protected by the levee are subject to flooding and to cutting and deposition.

Meissner Island Division

Ambraw-Haynie – Nearly level and gently sloping, poorly drained and moderately well drained, moderately permeable, silty soils; formed in loamy alluvium. The Ambraw soils are poorly drained and found in swales and depressions, while the Haynie soils are on undulating ridges and wide floodplain terraces. There are 5 soils types found on Meissner Island including Riverwash, Aquents, loamy, Sarpy fine sand, Ambraw silty clay loam and Haynie silt loam. They all are frequently flooded and poorly suited to cultivated crops. Shallow water areas for waterfowl can be easily developed on Ambraw silty clay loam and Aquents soils.